

First International Conference Innovations and Future Trends in Communication Technologies and Computer Science

Department of Communication and Computer Engineering

Faculty of Engineering

South-West University "Neofit Rilski"

Blagoevgrad, Bulgaria

May 20, 2026



CONFERENCE PROGRAMME

<https://zylan-cell.github.io/SWU-conference/en/>

Online access link: <https://bbb.swu.bg/b/gab-w1m-ltk-oif>



Wednesday, May 20, 2026

Wednesday, May 20, 2026, 9:30 – 10:00

Registration, Building 1, 1st floor, Room 114

Wednesday, May 20, 2026, 10:00 – 10:15

Opening Ceremony, Room 114

Moderator: Prof. Gabriela Atanasova, PhD Eng.,
Vice-Dean of the Faculty of Engineering, Head of the Department of
Communication and Computer Engineering

Prof. Dr Nikolay Marin, Rector of South-West University "Neofit Rilski", Conference Chair

Prof. Snezhina Andonova PhD Eng., Dean of the Faculty of Engineering, South-West University "N. Rilski", Conference Co-Chair

Prof. Dr Stefan Stefanov, Vice-Rector of South-West University "Neofit Rilski", Conference Co-Chair

Wednesday, May 20, 2026, 10:15 – 12:00

Bridge Academy – Industry, Room 114

Moderator: Prof. Gabriela Atanasova, PhD Eng.,
Vice-Dean of the Faculty of Engineering, Head of the Department of
Communication and Computer Engineering

10:15 – 10:35 Rohde&Schwarz, Valeri Simeonov, Sales, Test &
Measurements

10:35 – 10:55 Würth Elektronik eiSos, Dimitar Vasilev, Eng.

10:55 – 11:15 ABB Bulgaria

11:15 – 11:35 Ottobock Bulgaria



Wednesday, May 20, 2026, 11:35 – 12:30

Without Borders, Room 114

Moderator: Prof. Gabriela Atanasova, PhD Eng.,
Vice-Dean of the Faculty of Engineering, Head of the Department of
Communication and Computer Engineering

11:35 – 12:00 Ethics and AI in Academic Publishing (MDPI), Iustina
Bostan, Eng. Deputy Managing Editor

12:00 – 12:30 Erasmus+ Programme

Wednesday, May 20, 2026, 12:30 – 13:15

Lunch

Wednesday, May 20, 2026, 13:15 – 15:00

**Scientific Session 1: Innovations in Communication and Computer Engineering
and Technologies, Room 114**

Moderator: Assoc. Prof. Nikolay Atanasov, PhD Eng.,
Department of Communication and Computer Engineering

13:15 – 13:30 Characteristics of Data Centers in Cloud Computing

Georgi Georgiev (Department of Communication and Computer
Engineering, South-West University Neofit Rilski, Bulgaria),

Ivan Nedyalkov (Department of Communication and Computer
Engineering, South-West University Neofit Rilski, Blagoevgrad,
Bulgaria)



13:30 – 13:45 Conceptual model of UAV architecture with Raspberry Pi for training and prototyping applications

Filip Tsvetanov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria),

Vasily Knyazev (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

13:45 – 14:00 dsPIC30-BASED DIGITAL CONTROL AND MONITORING SYSTEM FOR THYRISTOR BATTERY CHARGERS

Ivo Angelov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Shaban Cholak (Department of Technological Training and Education, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

14:00 – 14:15 Innovative Architectural and Technological Solutions in Creating a Web Space for Convenient Interaction with Participants

Timofiy Prihuza (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria),

Heorhii Radulov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

14:15 – 14:30 Electromagnetic Microwave Recognition Techniques for Biomedical Breast Imaging: Advanced Microwave Imaging Systems for Early Breast Cancer Detection

Dimitar Suvandzhiev (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)



14:30 – 14:45 Digital Transformation and Emerging Technologies in Modern Communication Systems

Fation Sina (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

14:45 – 15:00 Indoor measurements and time-based analysis of RSSI in cellular networks

Nikolay Atanasov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Hüdaverdi AY (Department of Electrical and Electronics Engineering, Gaziantep University, Turkey)

Ahmet Sefa Yildiz (Department of Electrical and Electronics Engineering, Gaziantep University, Turkey)

Wednesday, May 20, 2026, 15:00 – 15:15

Coffee Break

Wednesday, May 20, 2026, 15:15 – 16:45

Scientific Session 2: Innovations in Communication and Computer Engineering and Technologies, Room 114

Moderator: Assoc. Prof. Nikolay Atanasov, PhD Eng.,
Department of Communication and Computer Engineering

15:15 – 15:30 Additive Technologies for Antenna Design and Prototyping



Gabriela Atanasova (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Ramazan Ertuğrul Aydoğan (Department of Electrical and Electronics Engineering, Gaziantep University, Turkey)

Blagovest Atanasov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Dmitro Doizha (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Manol Avramov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

15:30 – 15:45 Interactive STEM Education: A Digital-Robotic Environment for Adaptive Learning

Elizabet Simeonova (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria),

Fatima Sapundzhi (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

15:45 – 16:00 Evolution of Electronic Systems: From Analog Devices to Modern Embedded Systems

Silvia Lazarova (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria),

Fatima Sapundzhi (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)



16:00 – 16:15 RF-EMF Measurements in Urban Environment: A Pilot Study

Rosen Mitov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

16:15 -16:30 Design and Implementation of a Smart Parking System for Real-Time Space Monitoring

Simeon Chakarov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Fatima Sapundzhi (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Salih Sapundzhi (High School of Natural Sciences and Mathematics, Blagoevgrad, Bulgaria)

16:30 – 16:45 A Software Framework for Integrating MATLAB Computation into a C# Desktop Application

Metodi Popstoilov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria),

Fatima Sapundzhi (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

16:45 – 17:00 Drones as a Potential Solution for Early Threat Detection

Borislav Botev (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

17:00 – 17:15 Design of spatial filter banks – a choice of horn radiator
Ivan Ivanov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)



Dimatar Shopov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

17:15 – 17:30 Regulations and standards for electromagnetic compatibility of wireless devices

Anna Vlahova (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Stoian Stambolijski (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Georgi Sarafski (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Neviana Vasileva (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

Andrey Pechinski (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

17:30 – 17:45 Smart Agriculture as a Tool for Achieving the UN Sustainable Development Goals

Stanislav Grozdanov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

17:45 – 18:00 Flexible Sensors: A Classification and Applications

Rafat Avdikov (Department of Communication and Computer Engineering, South-West University Neofit Rilski, Blagoevgrad, Bulgaria)

18:00 – 18:15 An IoT-based Smartphone Monitoring System for Campus Wi-Fi RSSI: Coverage Analysis and the Credential-Access Gap

Ramazan Karagoz (Department of Statistics, Eskisehir Technical University, Eskisehir, Turkey)



Wednesday, May 20, 2026, 18:15 – 18:30

Coffee Break

Wednesday, May 20, 2026, 18:30 – 19:00

Student Session: Computer and Communication Technologies, Room 114

18:30 – 18:40 Applications of Artificial Intelligence for Creating Multimedia Content

Talib Gurdal (High School 'Jordan Jovkov', Ribnovo, Bulgaria),

Neitse Kojbashi (High School 'Jordan Jovkov', Ribnovo, Bulgaria),

Mehmed Alev (High School 'Jordan Jovkov', Ribnovo, Bulgaria)

18:40 – 18:50 PC Builder

Simeon Kachulski (National Humanitarian High School "St. Cyril and Methodius", Blagoevgrad, Bulgaria)

18:50 – 19:00 The top of motorsports: The world of Formula 1

Kaloyan Kalenderski (Language high school "Acad. Ludmil Stoianov", Blagoevgrad, Bulgaria)